

## *PROFILE of Dr. Sachin. P. James*



Dr. Sachin. P. James completed his graduation and post graduation studies from Malabar Christian College, Calicut before joining at UPASI Tea Research Institute at Valparai as Senior Research Fellow in one of the National Tea Research Foundation Funded Project. After working more than 2 years in the project as SRF, he joined as Assistant Entomologist in the same institute during 2005. He obtained his Doctoral degree from Bharathiar University under the guideship of Dr. R. Selvasundaram,. His doctoral work was on Kairomones for the control shot hole borer and the thesis was awarded as highly commended thesis which is considered as one of the best contribution towards the advanced work in tea research.

Having worked as Assistant entomologist for 3 years he joined as an Head, Dept. of Entomology in Research & Department centre, E.I.D. Parry, Bangalore and worked for an year before taking up the present position as Assistant professor in P.G.and Research Department of Zoology, Malabar Christian College, Calicut. During his tenure in EID parry he was working on development of new bioproducts for the Plant growth and for the control of different pests and diseases. He has got many National and International research publications to his credit.

Name	:	Dr. Sachin. P. James
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Department	:	P. G & Research Department of Zoology
Date of joining the Institution	:	06.09.2010
Qualifications	:	M.Sc, Ph.D
Total experience in years	:	1 years
Research area	:	Zoology - (Entomology-Chemical Ecology)

### **PREVIOUS WORK EXPERIENCE & NATURE OF WORK**

Seven years of research experience relating to investigations especially on insect-plant interactions, microbials, entomopathogens, PGR's and new generation pesticides (2003-2010)

- ❖ Worked as Head of the Dept. of Entomology at R & D Centre of EID Parry for an year. Main areas of work were
- ❖ Determination of systemic effect of different plant/synthetic pesticides
- ❖ Evaluation bio-efficacy of insecticides/ acaricides/ biological against economically important pests.

- ❖ Development of PGR from plant origin and innovation of new evaluation methods of PGR
- ❖ Development of New botanicals for the control of pests
- ❖ Conducting laboratory bioefficacy trials on the evaluation of efficacy of entomopathogens and other biologicals, synthetic pesticides against major pests and preparation of reports.
- ❖ Training of field level executives and staff on the management, monitoring/assessment, spraying techniques, integrating various control methods of key pests.

## EXPOSURES

- a. Biochemical implications of Insecticides, Fungicides, herbicides etc **on environment** (Phyto toxicity and Effect on natural enemies)
- b. Biological control of pests using **semiochemicals and biocontrol agents**
- c. **Rearing and mass multiplication** of pests and predators in the laboratory
- d. **Evaluation** of bio-products and new chemical pesticides/insecticides in **laboratory** as well as in **field (RBD trials)**
- e. **Microbial** control of pests (**Entomopathogens**)
- f. Knowledge in **PGR** development and its evaluation
- g. Knowledge in soil less growing of plants (Hydroponics)
- h. Knowledge in **pesticide residue** analysis
- i. Knowledge in **GLP accreditation** procedures

## TECHNICAL EXPERIENCES

- ✓ Insect behavior studies using **Electroantennogram, wind tunnel, olfactometer** etc
- ✓ Rearing of different pests and predators in the laboratory
- ✓ Analysis and identification of plant volatiles using **Gas chromatography (GC-MS and GC-HS)** Perkin Elmer gas chromatography with turbo mass spectrum
- ✓ Separation Techniques using **GC** with Detectors (**FID, ECD, NPD**), **HPLC, TLC** etc

## DATA ANALYSIS & COMPUTER KNOWLEDGE

Statistical analysis of Field studies data using various software packages (**SPSS, Sigma Stat 12.0, Harward graphics, Microsoft excel**).  
Windows- MS Office, Coral draw, PhotoShop, Macromedia, PageMaker and languages 'C' & Visual Basic.

## EXTENSION/SOCIAL OUTREACH WORK

\* NSS programme officer in Malabar Christian College

- \* Member of Entomological Society of India
- \* Co-ordinator of Pain and Paliative club, M. C. C. Calicut

## SCHOLASTIC RECORD

### **Ph.D in Entomology (Chemical ecology)**

Thesis entitled “**Studies on certain plant volatile attracting the shot hole borer, *Euwallacea fornicates* (Scolytidae: Coleoptera) infesting tea**” from Bharathiyar University, Coimbatore, Tamil Nadu. India (**August 2008**).

### **M. Sc Majored in Zoology (Entomology)**

2000 – 2002 – Malabar Christian College, Calicut  
University of Calicut, Kerala. (**April 2002**).

### **B. Sc - Majored in Zoology (Entomology as special subject)**

Minored in **Chemistry and Botany**  
1997 – 2000 – Malabar Christian College, Calicut  
University of Calicut. Kerala (**April 2000**).

## LIST OF PUBLICATIONS

### A. INTERNATIONAL

1. **James P Sachin**, Selvasundaram. R, Babu A. and Muraleedharan N. (2008). Behavioural and Electroantennographic responses of the Tea mosquito, *Helopeltis theivora* to female sex pheromones. *Environ. Entomol.* **37(6): 1416-1421**
2. Chinnachamy Karthika and Paul James **Sachin** (2008). Gas- chromatographic method for the determination of hexaconazole residues in black tea. *Journal of Zhejiang University SCIENCE B.* **9(2):160-164 (Springer publication)**
3. Selvasundaram. R\*; Muraleedharan N; and **P.J. Sachin.** (2005) Kairomones for trapping shot hole borer infesting tea. **Poster** presented at the international conference “Area wide control of insect pests: integrating sterile insect and related Nuclear and other techniques. **United Nations** international atomic energy agency (**IAEA**) and Food and agricultural organization (**FAO**) at Vienna, Austria. **IAEA-CN-131/173P pp.238**

### B. NATIONAL

1. **Sachin. P. James.,** Babu, A. Perumlsamy, K. Muraleedharan, N., and Selvasundaram, R., Red spider mite, *Olygonychus coffeae* (Nietner) induced plant volatiles from tea leaves, an invitation to its predators. *Journal of plantation crops* **36(3): 425-429**

2. Babu. A, Selvasundaram. R., **Sachin.P.James\***, V. Balasubramanian Muraleedharan, N., (2008) Studies on the entomopathogenic fungus, *Paecilomyces fumosoroseus* (Deuteromycotina: Hypomycetes) for the control of red spider mite of tea, *Oligonychus coffeae* (Acari: Tetranychidae). In: *Recent trends in Insect Pest Management*. (Eds). S.J. Ignachimuthu & S. Jayaraj. Elite Publishing House (P) Ltd. Chennai. p.180-184.
3. K. Perumalsamy\*, **Sachin. P. James**, Muraleedharan, N and Babu, A. (2008). Life history and predator efficiency of *Stethorus gilvifrons* an important predator of red spider mite infesting tea. In: *Recent trends in Insect Pest Management*. (Eds). S.J. Ignachimuthu & S. Jayaraj. Elite Publishing House (P) Ltd. Chennai. p. 131-136.

### C. SHORT COMMUNICATION NATIONAL

- a. A. Babu, A. Roobak Kumar, K. Perumalsamy and **Sachin P. James**. (2008). New record of a predator of RSM. *Newsl. UPASI Tea Res. Inst.***18** (1). P: 4.
- b. A. Babu, N. Muraleedharan, A. Roobak Kumar, K. Perumalsamy and **Sachin P. James**. (2007). Effect of fenpyroximate 5 % EC (Mitigate) on red spider mite. *Newsl. UPASI Tea Res. Inst.***17** (2). P: 1.
- c. **Sachin P James**, R. Selvasundaram N. Muraleedharan and A, Babu. (2007) Field evaluation of traps for attracting shot hole borer. *Newsl. UPASI Tea Res. Inst.***17** (1). 3.
- d. A. Babu, N. Muraleedharan, K. Perumalsamy and **Sachin P. James**. (2007). Growth inhibiting activity of Hexythiazox against red spider mite. *Newsl. UPASI Tea Res. Inst.***17**(1): 2
- e. K.Perumalsamy, **Sachin P James**, R. Selvasundaram and A, Babu. (2006). Use of natural pyrethrum extract for the control of red spider mite. *Newsl. UPASI Tea Res. Inst.***16** (1):4
- f. Babu,A., **Sachin P. James**, K. Perumalsamy, R. Achuthan and Siby Mathew. (2006). Comparative Bio efficacy of natural Pyrethrum extracts and Oils of pongam + Neem against tea Thrips. *Newsl. UPASI Tea Res. Inst.***16**(2): 5.

### D. ARTICLES ACCEPTED

- a. Mary Anithalatha Sadanandan and Sachin.P.James (2001). Description of a new species of predatory mite (Acarina: Cheylitidae) from Kerala India. *Utter Pradesh Journal of Zoology*. Accepted for Publication.

### E. PAPERS PRESENTED IN CONFERENCES/WORK SHOP: National - 4